

3809
North Fork Bentonite Project (WYW-168310)

Certified Mail No: 7000-0520-0022-3882-3329
Return Receipt Requested

Black Hills Bentonite, LLC
Attn.: Bruce Lawson
P.O. Box 9
Mills, WY 82644

Subject: **Completeness Review Determination for North Fork Mine Plan of Operations**

Dear Mr. Lawson:

The BLM Buffalo Field Office (BFO) received the new North Fork Bentonite Mine Plan of Operations (Mine POO or Mine Plan) on October 17, 2011, from Black Hills Bentonite, LLC (BHB).

BFO has checked the surface and mineral ownerships for the lands included in the Cash Amendment which BHB recently submitted to the WDEQ LQD for Permit to Mine #339C. This amendment includes lands adjacent to Mine Permit #339C and the North Fork Amendment/Mine Plan. These lands were checked for ownership status as a Mine Plan of Operations which includes them has not been submitted to BLM. Surface owner consent is required for any SRHA lands included in the Cash Amendment to prove that a Mine Plan of Operations for these lands is not required per 43 CFR 3809.11(a) and 3809.31(d). If surface owner consent cannot be obtained, a Mine Plan of Operations must be submitted for these lands before beginning any operations greater than casual use (per 43 CFR 3809.11(a)). Please provide proof of surface owner consent for these lands within 30 calendar days.

We have conducted a completeness review of the North Fork Mine Plan of Operations in accordance with 43 CFR 3809.401. This Mine Plan has been found to not be complete per 43 CFR 3809.401. Identified below are the components of a complete Mine Plan and the BFO's determination for each for the North Fork Mine Plan, per 43 CFR 3809.411(a)(2). BLM specialists looked at the Wyoming Department of Environmental Quality (WDEQ) Land Quality Division (LQD) Permit to Mine #339C, North Fork Amendment, as submitted. Please submit the identified deficiencies within 30 calendar days.

1) **Operator Information:**

- i. Taxpayer identification number is missing.

Refer to Mine Plan Section 1.1. A revised copy of the Mine Plan is provided with this correspondence for replacement in the Plan of Operation (Plan) submittal.

- ii. No Information is provided for the company contact person for this project. Needed is their name, title, mailing address, and phone number.

Refer to Mine Plan Section 1.1.

- iii. Need to mention that BLM will be notified within 30 days should there be a change in operator for this project. This includes full company name, mailing and physical address, phone number, and taxpayer identification number, as well as information for their contact person (name, title, mailing address, and phone number).

Refer to Mine Plan in Section 1.2.

- iv. The list of mining claims provided on page A-2 for the project area is not correct. Please check your records and provide an up-to-date accurate listing of all unpatented mining claims in the project area.

The list of mining claims provided in Table MP-1, Mining Claims within the Project Area, in the Mine Plan is correct. There are two forty acre parcels of federal land within The NFAA. The claims are the Cash #95-1 in the NE¼NE¼ Section 22 and the Curuchet 98-3 in the NE¼NE¼ Section 26. The remainder of the land within the project area is a combination of private surface/private minerals and lands owned by the State of Wyoming.

- a. On November 15, 2011, 3 mining claims were identified in BLM records as having been located in the project area: Cash #95-1 (serial # WMC249508), Curuchett #98-3 (serial # WMC254753), and Curuchett #98-4 (serial # WMC255668) – Cash #95-1 in the NE of Section 22, and both Curuchett #98-3 and Curuchett #98-4 in the NE of Section 26.

There are only two mining claims within the project area. They are the Cash# 95-1 and the Curuchet #98-3. The other claim referenced, the Curuchet #98-4, is on private surface where Black Hills Bentonite has a valid mining contract with the Curuchets and the Cash Family Limited Partnership. Additionally, the Curuchet #98-4 lies within WDEQ Permit to Mine No. 339C - Amendment No-2 which was approved in 1989.

- b. The list of mining claims provided indicates that only 2 mining claims have been located in the project area: Cash #95-1 (serial # WMC249508) is located in the NENE of Section 22, and Curuchett #98-3 (serial # WMC255669) is located in the NENE of Section 26.

As stated above, there are only two mining claims within this project area.

2) Description of Operations:

i. Maps of the project area:

- a. Please include surface and mineral ownership types on all maps. This assists us to more accurately assess the proposed operations, and potential affects to other resources.

Map A-1, Surface Ownership Map, located in the Appendix A section of the Plan clearly illustrates that the only federally administered surface acreages within the project area are the two forty acre parcels described above (1. iv. a.) Additionally, Map A-2, Mineral Ownership Map clearly illustrates that the only federal minerals within the Plan area are the two forty acre parcels described above. Furthermore, the federal

acreage within the project area is delineated on the majority of the maps included in the original Plan of Operation submittal. Included with this correspondence are modified versions of the Hydrology Map, Map No. D6-1 and the Wildlife Map, Map No. D9-1 with the federally administered acreage within this Plan delineated. At the meeting held between BHB and BLM on December 1, 2011, it was agreed that it is not necessary to include surface and mineral ownership types on all maps.

- b. Maps D9-2 (2007 Wildlife Inventory) and D10-2 (2007 Wetlands Survey) need to show the project boundary for this submittal (the North Fork Amendment/Mine Plan area).

Map D9-2 will be submitted at a later date. A revised copy of Map D10-2 is enclosed for your copy of the Plan of Operation.

- c. Need to include staging areas for storage of equipment, fuels and other supplies, liquid and solid wastes, and trash, on a map, preferably Map MP-1 (Mine Plan & Progression).

This is addressed on in the Mine Plan Section 2.1.

- d. Although Map MP-1 has a legend item entitled "Equipment Parking Area," no such area can be identified on the map.

The legend for Map MP-1 has been revised. Reference to an "Equipment Parking Area (EPA)" has been removed because there is no separately defined Equipment Parking Area. The EPA is located on un-reclaimed State of Wyoming acreage in the NWNE Section 26. Enclosed with this correspondence is a revised copy of Mine Plan & Progression Map MP-1 for replacement in the Plan of Operation document.

ii. **Preliminary or conceptual designs, cross sections, and operating plans:**

- a. Any roads built on BLM surface must be constructed to comply with the "Buffalo Field Office Oil & Gas Road Submittals for Applications to Permit to Drill," 2008. Available on the BFO website: http://www.blm.gov/wy/st/en/field_offices/Buffalo/minerals.html.

This is addressed in the Mine Plan Section 2.2.

- b. It is uncertain if the total proposed acres given on Map MP-1 (Mine Plan & Progression) for Access Road D-D' (in NENE of Section 26) is for the entire length of that proposed access road, or only that portion on BLM surface. Please include both.

The total acreage for Access Road D-D' is 0.4 acres. The BLM portion of this access road is 0.2 acres. The acreage on State Land, which is outside of the North Fork Amendment area is 0.2 acres. Both of these numbers are now included on Map MP-1. A revised copy of the Mine Plan & Progression Map is included for replacement in the Plan of Operation.

- c. Map MP-1 shows only 1 portion of 1 access road is planned to be built on BLM surface (northeastern portion of Access Road D-D', in NENE of Section 26). Please explain how all other proposed pits in this Mine Plan will be accessed.

Refer to Mine Plan Section 2.2.

- d. It appears, but is not explained in the text, that there is only 1 main access road (directly off Mesa Road) that is used to access all mining areas to the west of Mesa Road in WDEQ Permit to Mine 339C, and the North Fork and Cash Amendments.

Refer to Mine Plan Section 2.

- e. Map D5-1, (Pre-Mining Topography & Overburden Sample Locations) shows that in the southernmost area of the Cash Amendment (NESE of Section 26), an existing pit (Pit 08-1) is proposed to be expanded southward in years 2012-2013 to encompass a portion of the main mine access road. Please explain how access to all mine areas in this Mine Plan will be retained when this area is mined.

Refer to Mine Plan, Page MP-5, Section 2.2.

- f. Map D5-1 also shows a number of other proposed mine pits that are to be mined through the access road (for example Pits 40-45). Please explain how access to mining areas beyond these pits will be retained when these pits are mined.

This issue is addressed in Mine Plan Section 2.2.

- g. During the on-site visit on October 26, 2011, it was explained that the main access road was originally a ranch road used by nearby surface owners to access their properties. It was further explained that these nearby ranch owners still use this road, and that BHB has an Access Agreement in place with them. Please describe and indicate clearly on a map all portions of this multi-use road that occur on BLM surface.

Your understanding of the main access road is incorrect. BHB's access to this area has historically been through an access road approved and developed through BHB's WDEQ-LQD permitted mining operations on private land owned by the Cash Family and land owned by the State of Wyoming. Recently the Cash Family Limited Partnership, obtained a road right-of-way agreement with the State of Wyoming for that portion of the access road that lies on State lands. None of this road is on BLM surface.

- h. No description is provided for what operations are to occur when, or how, or what piece(s) of equipment will be used to perform which operation(s). Please describe when and how vegetation, topsoil, and overburden removal will take place, as well as mining of bentonite, drying of bentonite, and reclamation activities.

Refer to Mine Plan Section 1.5, Mine Plan Section 3.0, Section 3.1, Section 3.2, and 3.4 Bentonite removal, handling and processing is covered in Sections 3.5 and 3.6 of the Mine Plan. Mining sequence and schedule is discussed in Section 3.7 of the Mine Plan. The Mine Plan Section 6.3, Hours of Operation, Routes of Haulage, Access Routes and Estimated Truck Traffic, provides additional information regarding the schedule and scope of mining activities on the NFAA. Reclamation activities are covered in Sections 2.0, 3.0, 4.0, 5.0 and 13.0 of the Reclamation Plan.

- i. Describe how, or if, BHB will operate in times of inclement weather. If operation is to occur during times of inclement weather, please explain how unnecessary or undue degradation will be mitigated or avoided.

This is addressed in Mine Plan Section 7.1.

- j. Please describe how often, and how, and using what piece(s) of equipment, the dried bentonite will be loaded and transported to the main processing facility in Casper.

Refer to Mine Plan Section 3.5, and Section 3.6.

- k. Please address the potential conflict with grazing in the area.

Refer to Mine Plan Section 6.1.

iii. **Water management plans:**

- a. Identify springs located within 1 mile of the project area and include a monitoring plan for them.

As discussed at the December 1, 2011 meeting between BHB staff and BLM personnel, there are no permitted springs within three miles of the Plan area therefore there is no need for a monitoring plan. This is discussed in the Mine Plan Section 1.8, Protection of Other Resources.

- b. Operator must offer a water well agreement to the owner of any permitting water well within ½ mile of the project area.

Refer to Mine Plan Section 1.8 Protection of Other Resources.

iv. **Rock characterization and handling plans:**

The Mine Plan must include the analytical protocols and criteria that will be used to identify potential acidic or reactive conditions, or the generation of deleterious leachate, and how these conditions will be treated and reclaimed, if necessary.

Refer to Appendix D5 - Topography, Geology and Overburden of the Plan for a discussion of the overburden suitability and rock characterization on the NFAA. Mine Plan Section 3.2, also addresses overburden suitability and handling procedures.

v. **Quality assurance and control plans:**

A quality assurance and control plan is necessary to ensure the environmental performance of mine facilities constructed on BLM lands.

Refer to Mine Plan Section 1.9 and Mine Plan Section 2.1.

vi. **Spill contingency plans:**

- a. Spills are not discussed. The spill contingency plan must describe how an operator will respond to a spill, including containment and clean-up procedures, enhanced

monitoring measures, and notification procedures to the appropriate regulatory agencies.

Refer to the Mine Plan Section 2.7.

- b. The spill contingency plan must include notification of BLM when a release or spill occurs on, or that may affect, BLM-administered lands.

Refer to Mine Plan Section 2.7.

vii. **Schedule of operations:**

- a. No annual schedule for operations, or overall schedule for the mining and reclamation of the North Fork Amendment/Mine Plan, is provided.

Refer to Mine Plan Sections 1.4, 3.7 and 6.3. Further discussion of the timing of reclamation activities is found in Sections 2.1, 4.2, 5.2, 5.3 and 13.0 of the Reclamation Plan.

- b. Also not described are the hours per day and days per year the project is anticipated to operate. Knowing if it will operate 24-hours a day and 7 days a week, as compared to only during daylight hours and a 5-day work week, or seasonally as compared to year-round, are critical to understanding the nature of the impacts.

Refer to the Mine Plan Section 6.3.

- c. The operations schedule should include these details for start through closure of the project.

Mine Plan Section 3.7, Mining Sequence and Schedule, provides a pit-by-pit narrative of the proposed mine and reclamation schedule for the mining activities proposed on the NFAA. Mine Plan Map MP-1 illustrates the proposed year of development for each mine disturbance proposed on the NFAA.

viii. **Support facility and infrastructure plans:**

- a. No description is provided for parking or staging areas. Please describe such areas, including where vehicles and equipment are planned to be temporarily parked or housed, where and how fuels and other supplies will be stored prior to use, as well as where and how liquid and solid wastes and trash will be stored prior to removal.

This is addressed in the Mine Plan Section 2.1.

- b. Please describe how and how often fuels and other supplies will be brought in, and how and how often wastes and trash will be removed.

Refer to Mine Plan Section 2.8.

- c. Please describe how each successive new mine pit will be accessed, and to what standards these roads will be built. Also describe if any of these access roads will be

mined through, and when, and if so, how access to prior and successive pits will be maintained.

This issue is addressed in the Mine Plan Section 2.2.

- d. A Right-of-Way (ROW) across BLM surface is not necessary, but may be pursued, for access associated with a Mine Plan. An explanation of this should be included.

There will be no need for a ROW across BLM surface. Therefore there is no need for an explanation.

- e. Please identify if a Storm Water Pollution Prevention Permit (SWPPP) has been secured from the WDEQ.

A copy of the WDEQ/WQD Stormwater Discharge authorization is included in the "Other Permits" section of the Plan.

3) Reclamation Plan:

i. Drill-hole plugging:

- a. Reclamation plans must include a description of how drill holes (those not approved to be mined out) are to be sealed or plugged. Sealing/plugging procedures must describe measures to prevent:

Refer to Reclamation Plan, Section 11.0.

- i. Mixing of waters from different aquifers.
- ii. Impacts to beneficial uses.
- iii. Downward water loss.
- iv. Upward water loss from artesian conditions.
- v. Inflow of surface water into the drill hole.
- vi. The open hole from becoming a surface hazard.

- b. All proposed sealing/plugging plans must meet State of Wyoming drill hole plugging requirements, at a minimum.

Refer to Reclamation Plan Section 11.0.

ii. Regrading and reshaping:

- a. Should include discussion of soil types and identify any special treatments required for reclamation.

Appendix D7, Soils, provides soil and map unit descriptions for the soil types found on the Plan area. This information includes recommended topsoil salvage depths. Refer to Mine Plan Section 3.2 and Reclamation Plan Section 4.3 for discussion of overburden analysis and handling.

- b. All reclamation must meet the criteria of the Wyoming State Reclamation Policy (IM WY-2009-022).

Refer to Reclamation Plan Section 6.1.

- c. All improvements on BLM surface will be removed and reclaimed for abandonment.

Refer to Mine Plan Section 2.1 and Reclamation Plan Section 10.0.

iii. **Mine reclamation:**

- a. Surface reclamation on BLM surface lands should include decompaction of soils. This would include roads, parking and staging areas, and other facilities.

Refer to Reclamation Plan Section 5.1.

- b. How water (pits, runoff, accidental spills, waste and deleterious materials, etc.) will be managed during reclamation.

Refer to Reclamation Plan Sections 2.3, 2.4 and 9.0.

- c. Post-closure management needs to be addressed, including types of monitoring that will occur (such as on-the-ground, or analyzing nearby well water) and length of time for each, and how to mitigate or reclaim if any untoward event occurs.

Refer to Section 1.8 of the Mine Plan and Section 12.0 of the Reclamation Plan.

iv. **Riparian mitigation:**

- a. No specific mention of riparian mitigation is evident within the reclamation plan. Please specify in the reclamation plan if no riparian areas are present.

Refer to Mine Plan Section 1.8 and Appendix D10-Wetlands.

- b. If riparian areas exist, the reclamation plan must describe how the operator proposes to: 1) avoid impacts to riparian areas, and, 2) if impacts cannot be avoided, plans to reclaim or restore the riparian area. Mitigation plans must address the replacement of soil and reestablishment of riparian conditions and vegetation.

Refer to Mine Plan Section 8.

v. **Wildlife habitat rehabilitation:**

- a. Although wildlife habitat rehabilitation is mentioned within the reclamation plan, special emphasis needs to be placed on Greater sage-grouse (sage-grouse) habitat that will be lost due to mining.

Responses pending.

- b. The seed mixture, described on pages RP-3 and RP-4, does not include any forb species or sagebrush. The Mine Plan states that the goal of reclamation will be to re-establish wildlife habitat to a condition equal or greater than pre-mining conditions. Please amend your reclamation plan to address sage-grouse habitat, specifically by adding forb

species into the seed mix, and addressing sagebrush re-establishment.

Refer to Section 5.0 and Reclamation Table RP-1.

vi. **Topsoil handling:**

Topsoil will be re-spread versus stockpiled on BLM surface.

Refer to Mine Plan Section 3.1 and Mine Plan Section 3.7 and Reclamation Plan Sections 4.2 and 5.1

vii. **Revegetation:**

- a. The reclamation seed mix quoted in the reclamation plan is acceptable for Range Management for BLM surface, for the relatively small areas proposed to be disturbed in this Mine Plan. However, as indicated in item 3) v. b., above, forb species need to be included in the seed mix, and sagebrush reestablishment needs to be addressed.

See Reclamation Plan Table RP-1.

- b. Operator needs to address weed control. On BLM surface, an approved Pesticide Use Plan will be necessary for any chemical treatments.

Refer to Reclamation Plan Section 5.8.

viii. **Isolation and control of acid-forming, toxic, or deleterious materials:**

- a. Reclamation plan must include plans for isolation and/or control of any acid-forming, toxic, or deleterious materials. This should include source control to prevent contaminant generation, migration control to prevent movement of contaminants, and capture and treatment of contaminants.

Refer to Mine Plan Section 3.3 and Reclamation Plan Section 9.0.

- b. Reclamation plan must be integrated with rock characterization and handling plans used during mine operations.

Refer to Mine Plan Section 3.2 and Appendix D5 - Topography, Geology and Overburden as well as Reclamation Plan Section 9.0.

- c. Please describe if any waste or materials generated during mineral extraction and processing is Resource Conservation and Recovery Act (RCRA) exempt or not. Reclamation plan must include plans for isolation and control of non-exempt materials.

This is not applicable. Refer to the Mine Plan, Section 3.3 and Reclamation Plan Section 9.0.

ix. **Removal or stabilization of buildings, structures, and support facilities:**

Please describe if any roads, equipment, etc., built or erected during mine operations are planned to remain post-closure, and for how long, and their planned uses

Refer to Mine Plan Section 2.1, and 2.2 and Reclamation Plan Section 10.0.

x. **Post-closure management:**

- a. Please describe any infrastructure that will remain after reclamation has been completed, and how and how long they will be maintained. This includes roads, fencing, signs, water or sediment containments, etc.

Refer to Reclamation Plan Section 12.0

- b. Post-closure activities need to be fully described, and the operator must be committed to performing the required work over the necessary time period.

Refer to Reclamation Plan Section 12.0.

4) **Monitoring Plan:**

- i. Include a table which identifies the locations and depths of all stock and domestic water wells within a 1 mile radius of the project area.

Table D6.1 in the Hydrology section of the Plan lists all wells within three miles and highlights those within one-half mile of the NFAA.

- ii. Include a description of routine monitoring for the stock and domestic water wells within a 1 mile radius of the project area.

Refer to Mine Plan Section 1.8 and Appendix D8 of the Plan.

- iii. The Mine Plan makes mention of wildlife protection and monitoring on pages MP-11 and MP-12. However, no monitoring strategy or plan was submitted with the Mine Plan. Please submit a monitoring plan for determining what wildlife is present in the affected area of the proposed project, and how mining will affect the wildlife resources in the area. In addition, please submit official letters from the Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service with their comments regarding the project and recommendations for mitigation of the projects' effects.

Responses pending.

5) **Interim Management Plan:**

No interim management plan items are included in the Mine Plan. An Interim Management Plan should outline procedures that will be followed during times of temporary non-operation, both planned and unplanned. An interim management plan should include the following:

- i. Measures to stabilize excavations and workings.
- ii. Measures to isolate or control toxic or deleterious materials.
- iii. Site specific plans for the management of surface runoff and sediment control.
- iv. Provisions for the storage or removal of equipment, supplies, and structures.
- v. Measures to maintain the project area in a safe and clean condition.
- vi. Plans for monitoring site conditions.
- vii. A schedule of anticipated periods of temporary closure during which you would implement the Interim Management Plan.

- viii. Provisions for notifying BLM during periods of non-operation.

Refer to Mine Plan Section 7.0 for discussion of the issues listed above.

In addition to the components identified above which are necessary for a complete Mine Plan, additional operational and baseline environmental information will facilitate BLM's National Environmental Policy Act (NEPA) analysis of the proposed operations and activities. Please note that in addition to the information listed below, there may be other information needed as the NEPA analysis process is completed.

Wildlife:

- 1) Wildlife resource locations are inherently dynamic and can change from year to year depending on environmental conditions. The wildlife report submitted in Appendix D-9 of the Mine Plan includes information through 2007. This information is 4 years old or more, and is insufficient to serve as baseline information for conducting a comprehensive impacts analysis in compliance with NEPA. Please provide more recent data collected in the proposed project area, preferably up to and including the 2011 survey season. Data should include at a minimum: sage-grouse, migratory birds of high federal interest (MBHFI), raptor nest locations, winter bald eagle surveys, BLM sensitive species, and threatened and endangered species.

Responses pending.

- 2) In the wildlife report on pages D9-12 and D9-13, under "D9.5.0 Conclusions," BHB states that future mining will be conducted in order to minimize impacts to active raptor nests. Please be more specific as to how BHB plans to mitigate impacts to raptor nests.

Responses pending.

- 3) In the wildlife report on pages D9-12 and D9-13, under "D9.5.0 Conclusions," BHB states that MBHFI will be protected wherever they are found. Please be more specific as to how BHB plans to detect nests of migratory birds and mitigate impacts to them.

Responses pending.

- 4) No mention is made as to how BHB plans to mitigate impacts to sage-grouse from mining in close proximity to Core Area leks and suitable nesting habitat. Please provide either justification as to why no mitigation is needed, or provide measures to mitigate impacts to sage-grouse.

Responses pending.

BLM may require other information, such as a reclamation cost estimate, to ensure that proposed operations comply with BLM regulations 43 CFR 3809. An initial reclamation cost estimate has been provided in the Mine Plan. WDEQ LQD establishes the bond amount on public lands (per 43 CFR 3809.500 and WS 35-11-417, and as stated in Supplement to MOU No. 19 Between the US DOI and the WDEQ LQD for Management of Surface Mining and Exploration for Locatable Minerals on Public Lands, signed 11/19/2003). In addition, bond coverage is re-evaluated with each annual report. BLM shall review the bond amount and respond to LQD with either concurrence or recommendations for modification. BLM has not reviewed the reclamation cost estimate or bond, as bond information has

not been provided by the WDEQ LQD. After receiving the required bond information, BLM will review the bond and the reclamation cost estimate, and provide concurrence or recommendation for modification to LQD within 15 business days.

The BLM is responsible for ensuring the operator has the legal right to mine (active mining claims), and shall promptly notify WDEQ LQD if there is not a valid right to mine (Supplement to MOU No. 19 Between the US DOI and the WDEQ for Management of Surface Mining and Exploration for Locatable Minerals on Public Lands, signed 11/19/2003). A list of unpatented mining claims has been provided in the Mine Plan. Please see item 1) iv., above, for the results of BFO's check of this list of mining claims.

Refer to comment 1) vii. a. & b.

For further information or clarification please contact Kerry Aggen, Geologist and Project Manager (telephone: 307-684-1196, email kaggen@blm.gov).

Sincerely,

Duane W. Spencer
Field Manager